

--CROSS REFERENCE TO RELATED APPLICATIONS

A1
This is a continuation application of U.S. Serial No. 08/934,254 filed on September 19, 1997, which is a continuation-in-part of U.S. Serial No. 08/789,936 filed on January 28, 1997, now U.S. Patent No. 5,789,220, which is a continuation-in-part of U.S. Serial No. 08/307,382 filed on September 14, 1994, now U.S. Patent No. 5,552,306, which is a continuation of U.S. Serial No. 07/959,952 filed on October 13, 1992, abandoned, which is a continuation-in-part of U.S. Serial No. 817,919, filed on January 8, 1992, abandoned, which is a continuation-in-part application of U.S. Serial No. 774,475 filed on October 10, 1991, abandoned.--

IN THE CLAIMS:

Please cancel claims 1-46 without prejudice.

Please add the following claims:

- A2
47. An isolated nucleic acid molecule encoding a delata-6 desaturase.
 48. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a plant delta-6 desaturase.
 49. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a bacterial delta-6 desaturase.
 50. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a fungal delta-6 desaturase.
 51. A genetic construct comprising an isolated nucleic acid according to claim 47.
 52. A vector comprising the genetic construct according to claim 51.
 53. A cell comprising the vector according to claim 52.

10029756.122101